

Abstracts

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METHODS: We analyzed the 2004 German InEK Hospital statistics data, the 2005 French Programme de Médicalisation des Systèmes d'Informations (PMSI) database and the 2005–06 NHS England Hospital Episode Statistics (HES) database to estimate the number and type of surgical procedures for POP. We included procedures performed for uterovaginal prolapse, such as colporrhaphy, sacrocolpopexy and sacrospinous colpopexy. Additionally, we identified the total number of hysterectomies; extrapolating from previous studies, we assumed 15% of these were performed for a primary indication of POP. We multiplied the observed number of surgical procedures by the respective 2007 Diagnosis-Related Group (DRG) reimbursement rates to estimate the direct annual surgical cost. **RESULTS:** Annually, 62,581 POP repair procedures were performed in Germany, 32,392 in France and 23,583 in NHS England. In addition, we estimate that 39,329 hysterectomies are performed for a primary indication of POP across the three healthcare systems. The direct surgical cost of these surgical procedures was €476M. **CONCLUSIONS:** The annual direct surgical cost of POP to the 3 big European healthcare systems is nearly €500M, highlighting a significant burden to the European payer. This is under-estimate of the true cost of the illness because it does not include other medical costs, cost of conservative management and societal costs. Extrapolating from epidemiological studies, about 30% of POP procedures are repeat surgeries, implying the direct surgical cost of re-operations is approximately €135M. Considering the high financial burden of POP and its recurrence, it is imperative that new standardized procedures with superior outcome are considered, in order to effectively treat the condition, and by doing so, reduce recurrence.

PIH6

CONTRACEPTIVE AND NON-CONTRACEPTIVE BENEFITS OF A LEVONORGESTREL-RELEASING INTRAUTERINE SYSTEM IN A VERTICALLY INTEGRATED HMO

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OBJECTIVES: In 2001, excessive uterine bleeding was the cause of 1.4 million physician visits in the US. Beyond offering contraceptive benefits, Levonorgestrel-Releasing Intrauterine System (LNG-IUS) is an effective alternative to traditional management of menstrual bleeding disorders. The objective was to describe a population on LNG-IUS and assess contraceptive and non-contraceptive outcomes. **METHODS:** Women ≥ 18 years of age with LNG-IUS and ≥ 1 year of continuous enrollment pre- and post-insertion were identified via a retrospective cohort design utilizing claims data from a Michigan vertically integrated health care system (Jan. 2000–Dec. 2005). Patterns of LNG-IUS use, number of obstetric- and gynecology-related visits, percent of patients with menorrhagia, dysmenorrhea, dysfunctional uterine bleeding, and abnormal uterine bleeding were compared pre- and post-insertion, along with gynecology-related costs. **RESULTS:** A total of 152 women (mean age 35 ± 8) met study inclusion criteria. Two nested cohorts were distinguished further based on follow-up length as 2-year pre/post ($N = 73$) and 3-year pre/post ($N = 29$) groups. Over 90% had a single insertion and $\approx 4\%$ a LNG-IUS -related complication (e.g. expulsion, perforation, or infection). No LNG-IUS patient experienced a pregnancy with no obstetric-related visits post-insertion for all groups. Thirteen percent of women experienced menorrhagia in the year preceding insertion, down to 12.5%, 1.2% and 0% in the 1, 2 and 3 years post-insertion. Subsequently, mean number of gynecology-

related visits decreased from 4 to 2; 7 to 4 and 9 to 4 from the pre- to the post-insertion period for the 1, 2, and 3-year follow-up groups, respectively. Among non-hysterectomized women, mean gynecology-related costs decreased from \$1646 per patient in the 3 years preceding LNG-IUS to \$1355 in the 3 years post-insertion. **CONCLUSION:** LNG-IUS avoided pregnancy in all patients and led to decreased bleeding-related events and gynecology-related costs starting in the second year post-insertion. Benefits should become more apparent with longer follow-up.

PIH7

CHARACTERISTICS ASSOCIATED WITH BENZODIAZEPINE USAGE IN ELDERLY OUTPATIENTS IN TAIWAN

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OBJECTIVES: Benzodiazepines are commonly prescribed for older people. As the elderly are more susceptible to potential adverse outcomes from benzodiazepines, it is recommended that benzodiazepines be used for short periods with a reduced dosage. This observational study aimed to investigate benzodiazepine use, in terms of treatment period and mean dosage, and examine characteristics associated with use. **METHODS:** This was an observational study of randomly selected subjects enrolled in the National Health Insurance program, aged at least 65, who received at least one prescription for benzodiazepines in 2002. They were grouped according to treatment period and mean dosage. The treatment period was defined as the number of days covered by prescribed benzodiazepines. The mean dosage was defined by the average defined daily dose (DDD) of each individual. An ordered logit regression model was adopted to evaluate associations of characteristics with benzodiazepine usage. **RESULTS:** Of the 17,024 elderly persons included, a total of 7451 had received at least one prescription for benzodiazepines. Individuals with comorbid mental disease such as insomnia, anxiety, and depression, and comorbid physical disease such as cardiovascular disease, cancer, and renal disease, and previous receipt of benzodiazepines were more likely to receive benzodiazepine prescriptions. Those older than 75 years, male, with insomnia, anxiety, depression, mental disease, physical disease such as cardiovascular disease and diabetes, previous receipt of benzodiazepines, and higher prescription-overlap ratio were more likely to receive longer treatment. Subjects with insomnia, anxiety, depression, other mental disease, arthritis, previous receipt of more benzodiazepines, and higher prescription-overlap ratio were more likely to receive higher-dose therapy. **CONCLUSION:** According to our preliminary findings, the one-year prevalence of benzodiazepine use among the elderly was approximately 44%. Mental disorders, previous exposure to more benzodiazepine, and higher prescription-overlap ratio were associated with both longer treatment and higher mean daily dose.

PIH8

MEDICARE PART D AND STATE-LEVEL VARIATIONS IN MEDICARE ADVANTAGE PARTICIPATION

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OBJECTIVES: With the implementation of Medicare Part D, managed care plans have aggressively marketed their offerings, potentially expanding the proportion of beneficiaries enrolled in Medicare managed care, known as Medicare Advantage (MA). Growth in MA penetration has potentially important implica-